

**REMARKS**

Claims 5, 6 and 35-49 are canceled; and claims 1-4 and 7-34 are pending in the application.

Claims 14-34 are indicated to be allowed.

Claims 8-13 are indicated to be unpatentable over Rigg in view of Kirby. Applicant respectfully submits that neither Rigg or Kirby is an appropriate §103 reference. Specifically, both Rigg and Kirby or commonly owned by Micron Technology, Inc. at the time the present invention was made, and the present invention was also owned by Micron Technology, Inc. at such time. The assignment of Rigg and Kirby to Micron Technology, Inc. is evidenced by documents submitted herewith, and the assignment of the present invention to Micron Technology, Inc. is evidenced by an assignment recorded at reel/frame 015204/0879. §103(c) specifically states that subject matter which qualifies as prior art only under §102(e) can not be utilized for a §103 rejection if the subject matter and the claimed invention were owned by the same entity at the time the invention was made. Thus, neither Rigg or Kirby can be utilized in a §103 rejection of the claims of the present application.

Claims 1-7 stand rejected as being anticipated by Rigg. Applicant respectfully requests reconsideration of such rejections.

Referring initially to claim 1, from which the other claims depend, such recites a method in which an opening is formed through a layer and to a surface suitable for electroless plating, with a periphery of the opening including an electrically conductive portion of an electrically conductive node. The claim then recites that a conductive material

is electroless plated within the opening and from the suitable surface, with the electroless-plated material forming an electrical contact to the electrically conductive node. The subject matter of claim 1 can be understood with reference to, for example, Figs. 7 and 8 of the present application. Fig. 7 shows an opening 122 formed through a layer 56 and to a surface 105 suitable for electroless plating, with the opening including electrically conductive portion of an electrically conductive node 62. Fig. 8 shows conductive material 80 electroless plated within the opening.

Rigg does not show any application in which an opening is formed through a layer and to a surface suitable for electroless plating. Rather, Rigg shows at, for example, Figs. 3E and 3F a material 371 having a surface suitable for electroless plating formed within an opening, and a material 372 electroless plated onto material 371. In other words, instead of showing the claim 1 recited step of forming an opening to a surface suitable for electroless plating, Rigg performs the opposite sequence of a first forming the opening and then providing the surface suitable for electroless plating within the opening. Rigg thus does not anticipate the subject matter of claim 1. Further, for reasons discussed above, Rigg cannot be utilized as a §103 reference against the subject matter of claim 1, and thus also does not render obvious the subject matter of claim 1. Claim 1 is therefore allowable over Rigg.

Claims 2-4 and a 7-13 depend from claim 1, and are therefore allowable for at least the reasons for which claim 1 is allowable, as well as for their own recited features which are neither shown or suggested by the cited references.

Claims 14-34 are allowed, and claims 1-4 and 7-13 are allowable for the reasons discussed above. Applicant therefore respectfully requests that the Examiner's next action be a Notice of Allowance formally allowing all of the pending claims.

Respectfully submitted,

Dated: OCTOBER 29, 2005

By: 

David G. Latwesen, Ph.D.  
Reg. No. 38,533

*Encls. Documents evidencing the assignment of the subject matter of Rigg and Kirby to Micron Technology, Inc.*



## United States Patent and Trademark Office

[Home](#) [Site Index](#) [Search](#) [Guides](#) [Contacts](#) [eBusiness](#) [eBiz alerts](#) [News](#) [Help](#)

## Assignments on the Web &gt; Patent Query

## Patent Assignment Details

**NOTE: Results display only for issued patents and published applications. Pending or abandoned applications please consult USPTO staff.**

Reel/Frame: 015024/0535

Recorded: 02/20/2004

Page

Conveyance: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Total properties: 1

1 Patent #: 6943106 Issue Dt: 09/13/2005 Application #: 10784074 Filing Dt: 02/20/2005  
Publication #: US20050186790 Pub Dt: 08/25/2005

Title: METHODS OF FABRICATING INTERCONNECTS FOR SEMICONDUCTOR COMPONENTS  
INCLUDING PLATING SOLDER-WETTING MATERIAL AND SOLDER FILLING

## Assignors

1 KIRBY, KYLE K.

Exec Dt: 02/02/2004

2 MENG, SHUANG

Exec Dt: 02/02/2004

3 DERDERIAN, GARO J.

Exec Dt: 02/02/2004

## Assignee

1 MICRON TECHNOLOGY, INC.  
8000 SOUTH FEDERAL WAY  
BOISE, IDAHO 83716

## Correspondence name and address

WELLS, ST. JOHN P.S.  
DAVID G. LATWESIN  
601 W. FIRST AVENUE, STE. 1300  
SPOKANE, WA 99201-3828

Search Results as of: 10/14/2005 02

If you have any comments or questions concerning the data displayed, contact OPR / Assignments at 571-272-3350

[HOME](#) | [INDEX](#) | [SEARCH](#) | [eBUSINESS](#) | [CONTACT US](#) | [PRIVACY STATEMENT](#)

BEST AVAILABLE COPY

**DOCKETED****UNITED STATES PATENT AND TRADEMARK OFFICE**

10829.8742 US

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

ptp/sw

JUNE 09, 2004

**RECEIVED**

PTAS

JUN 16 2004



\*102607044A\*

PERKINS COIE LLP  
PAUL T. PARKER  
P.O. BOX 1247  
SEATTLE, WA 98111-1247

PERKINS COIE LLP

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 11/13/2003

REEL/FRAME: 014710/0875  
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

RIGG, SIDNEY B.

DOC DATE: 10/29/2003

ASSIGNOR:

WATKINS, CHARLES M.

DOC DATE: 10/29/2003

ASSIGNOR:

KIRBY, KYLE K.

DOC DATE: 10/29/2003

ASSIGNOR:

BENSON, PETER A.

DOC DATE: 10/29/2003

ASSIGNOR:

AKRAM, SALMAN

DOC DATE: 10/29/2003

P.O. Box 1450, Alexandria, Virginia 22313-1450 - www.USPTO.gov

014710/0875 PAGE 2

ASSIGNEE:

MICRON TECHNOLOGY, INC.  
8000 SOUTH FEDERAL WAY  
P.O. BOX 6  
BOISE, IDAHO 83706-9632

SERIAL NUMBER: 10713878

FILING DATE: 11/13/2003

PATENT NUMBER:


ISSUE DATE:

TITLE: MICROELECTRONIC DEVICES, METHODS FOR FORMING VIAS IN  
MICROELECTRONIC DEVICES, AND METHODS FOR PACKAGING MICROELECTRONIC  
DEVICES

THERESA FREDERICK, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

Express Mail No. EL491508935US

Attorney Docket No. 108298742US  
Disclosure No. 03-0599

Form PTO-1596 (Rev. 10/02, modified)		REC	11-24-2003	ET	U.S. Department of Commerce Patent and Trademark Office
11-13-03		102607044			
To the Honorable Assistant Commissioner for Patents: Please record the attached original documents or copy thereof.					
1. Name of conveying parties:			2. Name/address of receiving party:		
1. Sidney B. Rigg 2. Charles M. Watkins 3. Kyle K. Kirby			4. Peter A. Benson 5. Salman Akram Micron Technology, Inc. 8000 South Federal Way P.O. Box 6 Boise, Idaho 83706-9632		
Add'l names of conveying parties attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
3. Nature of conveyance:					
<input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Change of Name <input type="checkbox"/> Other			<input type="checkbox"/> Security Agreement <input type="checkbox"/> Reassignment		
Execution dates:			Add'l names of receiving parties attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
1. October 29, 2003 2. October 29, 2003 3. October 29, 2003			4. October 29, 2003 5. October 29, 2003		
4. Application number(s) and/or patent number(s):					
If this document is being filed with a new application, the date of signature by the first named inventor was: October 29, 2003.					
A. Patent Application No.(s) 10713878 B. Patent No.(s)					
Additional numbers attached: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
5. Name and address of party to whom correspondence concerning document should be mailed:			6. Total No. of applications and patents involved: one (1)		
Customer No. 25096 Perkins Cole LLP P.O. Box 1247 Seattle, Washington 98111-1247 (206) 359-8000			7. Total fee (37 CFR §3.41): \$40.00		
11/19/2003 BSAYAS11 00000048 10713878 4 FC:802 40.00 OP			<input checked="" type="checkbox"/> Enclosed <input type="checkbox"/> Charge Deposit Account No. 50-0665		
			8. Deposit Account No. 50-0665		
(Attach duplicate copy of this page if paying by deposit account)					
DO NOT USE THIS SPACE					
9. Statement and signature:					
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.					
Paul T. Parker					November 13, 2003
Name of Person Signing			Signature		Date
Total number of pages, including cover sheet, attachments and document: 8					

[09901-0001/RecordationCover.doc]

Application No. \_\_\_\_\_  
Express Mail No. EL491508935US

Attorney Docket No. 108298742US  
Disclosure No. 03-0599

### ASSIGNMENT

THIS ASSIGNMENT is by Sidney B. Rigg, Charles M. Watkins, Kyle K. Kirby, Peter A. Benson, and Salman Akram (the "Assignors"), residing at 2477 N. Leann Way, Meridian, Idaho 83642; 1313 W. Meander Drive, Eagle, Idaho 83616; 10681 N. Sagecrest Place, Boise, Idaho 83703; 2188 White Pine Place, Boise, Idaho 83706, and 1463 E. Regatta Street, Boise, Idaho 83706, respectively. We Assignors have invented one or more certain inventions (the "Invention(s)") described in a United States Patent Application entitled "MICROELECTRONIC DEVICES, METHODS FOR FORMING VIAS IN MICROELECTRONIC DEVICES, AND METHODS FOR PACKAGING MICROELECTRONIC DEVICES" (the "Application") and ☒ executed concurrently herewith; or ☐ filed on \_\_\_\_\_ as Application No. \_\_\_\_\_. We Assignors authorize the Assignee, identified below, or its representatives to insert the application number of the Application when known.

Micron Technology, Inc., a corporation of the State of Delaware having a place of business at 8000 South Federal Way, P.O. Box 6, Boise, Idaho 83706-9632 ("Assignee"), desires to acquire the entire right, title and interest in and to the Invention(s) and the Application, and in and to any patents (collectively, "Patents") that may be granted for the Invention(s) in the United States or in any foreign countries.


For valuable consideration, the receipt and sufficiency of which we acknowledge, Assignors hereby sell, assign, and transfer to Assignee, its successors, legal representatives and assigns, the entire right, title and interest in and to: the Invention(s), the Application, and any Patents; any divisions, continuations, and continuations-in-part of the Application and any other application claiming priority rights from the Application; any reissues, reexaminations, or extensions of any and all Patents; the right to file foreign applications directly in the name of Assignee; and the right to claim priority rights deriving from the Application (collectively, the "Rights"). Assignors warrant that they are joint owners of the Rights, and that the Rights are unencumbered. Assignors also agree to not sign any writing or do any act conflicting with this assignment, and, without further compensation, sign all documents and do such additional acts as Assignee deems necessary or desirable to: perfect Assignee's enjoyment of the Rights; prepare and prosecute the Application or any other applications for Patents; conduct proceedings regarding the Rights, including any litigation or interference proceedings; or



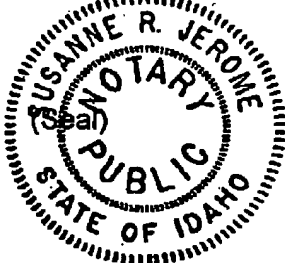
Application No. \_\_\_\_\_

Attorney Docket No. 108298742US  
Disclosure No. 03-0599

perfect or defend title to the Rights. Assignors request the Commissioner of Patents to issue any Patent of the United States that may be issued on the Invention(s) to Assignee. This Assignment may be executed in counterparts.

Date: 10/29/03  
Sidney B. RiggSTATE OF IDAHO  
COUNTY OF ADA

On October 29, 2003 before me, Susanne R. Jerome, personally appeared Sidney B. Rigg, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.



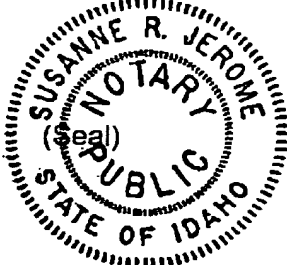
WITNESS my hand and official seal.

  
SignatureDate: 10/29/03

\*\*\*\*\*  
  
Charles M. Watkins

STATE OF IDAHO  
COUNTY OF ADA

On October 29, 2003 before me, Susanne R. Jerome, personally appeared Charles M. Watkins, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.



WITNESS my hand and official seal.

  
Signature

Application No. \_\_\_\_\_

Attorney Docket No. 108298742US  
Disclosure No. 03-0599

\*\*\*\*\*

Date: 10/29/03Kyle K. Kirby  
Kyle K. KirbySTATE OF IDAHOCOUNTY OF ADA

On October 29, 2003 before me, Susanne R. Jerome, personally appeared Kyle K. Kirby, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.



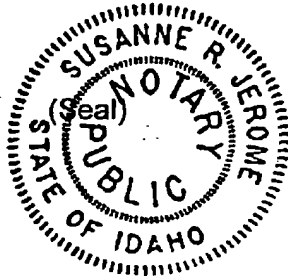
WITNESS my hand and official seal.

Susanne R. Jerome  
Signature

\*\*\*\*\*

Date: 10/29/2003Peter A. Benson  
Peter A. BensonSTATE OF IDAHOCOUNTY OF ADA

On October 29, 2003 before me, Susanne R. Jerome, personally appeared Peter A. Benson, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.



WITNESS my hand and official seal.

Susanne R. Jerome  
Signature

\*\*\*\*\*

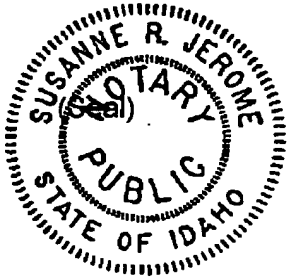
Application No. \_\_\_\_\_

Attorney Docket No. 108298742US  
Disclosure No. 03-0599

\*\*\*\*\*

Date: 10/29/03Salman Akram  
Salman AkramSTATE OF IDAHOCOUNTY OF ADA

On October 29, 2003 before me, Susanne R. Jerome, personally appeared Salman Akram, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.



WITNESS my hand and official seal.

Susanne R. Jerome  
Signature

\*\*\*\*\*